Proposed Broiler Unit at Mills Poultry Limited

Landscape and Visual Impact Assessment

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Viento Environmental Limited
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Landscape and Visual Assessment

INTRODUCTION

1. This report presents the findings of a landscape and visual impact assessment that has been undertaken to identify the likely effects of the proposed poultry broiler development on the landscape character and visual amenity of the locality.
2. The assessment has concentrated on a 3.0km radius study area for landscape character, landscape designations and visual amenity, which is considered sufficient to identify all likely impacts on landscape character and visual amenity given the limited height and extent of the development (see **Figure LV1** for the extent of the study area).
3. The assessment is illustrated by **Figure LV1 and** by **Viewpoints 1-6**.

METHOD OF ASSESSMENT

Assessment Approach

4. The assessment is a study identifying the key views towards the proposed development and describing how these views could change as a result of the proposal. In addition, the study identifies the landscape character of the site and surroundings and sets out the potential changes to landscape character that could occur as a result of the proposal.
5. The methodology used in this study conforms to the Guidelines for Landscape and Visual Impact Assessment, Third Edition (GLVIA3). GLVIA3 recommends that for non-EIA development, the assessment should be proportionate to the scale of the project and the nature of its likely effects and that an assessment of significance is not required.

Good Practice Guidance and Data

6. As mentioned above, the assessment has utilised guidance set out within the GLVIA3. Photographs illustrating views from each viewpoint have been taken using a Canon EOS 6D digital camera using a fixed lens with a 50mm focal length. Viewpoints are illustrated by individual frames, and other photographs are used to illustrate the text within the report and are also shown as single frame images. No set viewing distance should be ascribed to individual views. The viewpoint images are provided for information purposes and are labelled with relevant notes and should not be considered as a substitute to visiting a viewpoint in the field.

Assessment Process

7. The assessment has involved information review, fieldwork observations and photography, and has been undertaken in several stages, as presented in the following sections of this report:

- Predicted effects and mitigation – a review of the visual characteristics of the proposed development to identify the aspects with the potential to give rise to visual effects and a description of the measures incorporated into the design to mitigate these effects.
- Landscape and visual context – a review of the existing landscape and visual baseline of the study area, to identify landscape character, landscape designations and visual receptors in the study area.
- Viewpoint analysis – to illustrate typical local views and to predict the changes to views as a result of the proposed development from a selection of viewpoints that represent the main visual receptors in the study area.
- Landscape assessment – an assessment of the potential effects of the proposed development on landscape fabric, landscape character and landscape designations in the landscape study area.
- Visual assessment – an assessment of the potential effects of the proposed development on the visual amenity of receptors in the visual study area.
- Conclusions – a summary of the findings of the landscape and visual assessments.

Prediction Methodologies

8. The prediction methodologies for the viewpoint analysis, landscape assessment and visual assessment are provided at the beginning of these sections.

PREDICTED EFFECTS AND MITIGATION

9. A detailed description of the proposed development and information on the installation of the various components of this proposed development are provided in the **Design and Access Statement** of the Planning Application**.**
10. It is the visual appearance of the proposed development and associated activities and any proposed changes to the existing landscape fabric of the site that are the main aspects of the development with the potential to affect landscape and visual amenity and these are summarised below.
11. The main elements of the proposed development that would be visible would be:
    - Built form – two buildings each measuring 125.4m x 24.7m and 5.566m to ridge of roof. Twenty ridge mounted low velocity mechanical fans would thermostatically control each of the buildings at a height of approximately 1.0m above the roof. Four silos would be located in between the two buildings and would be of a height of up to 7.5m. The

silos/hoppers and building (including the roof) would all be juniper green (or similar) in colour. (Final colours to be agreed with the Council).

- Access and hardstanding – access to the new building would be created off the local road to the south through the existing field entrance, with improvements involving the removal of a short section of roadside hedgerow and the translocation of approximately 60m of hedgerow slightly north into the field to create a suitable visibility splay. This access would incorporate a hardstanding area surrounding the buildings approximately 45m by 100m in total in order to incorporate the existing farm building on the plot as well as the two proposed buildings.
- Deliveries to and from the site (as set out within the Design and Access Statement).
- Landscape enhancement proposals – a detailed planting scheme would be submitted post permission, if required. However, the Landscaping plan indicates the broad proposals for the landscaping measures. Existing hedgerows immediately east of the site would be improved and infilled with appropriate native species, hedgerow trees would be added to existing hedgerows on the local road south of the site, new native woodland belts would also be added to several fields adjacent to and surrounding the site and the existing hedgerows east following the route of the Glyndwr's Way would also be improved by infilling gappy sections. These measures are proposed to aid in the integration of the building into the area as well as adding enhancements to local landscape fabric.

12. From a landscape and visual perspective, the number of elements visible has been minimised by the limited height of the development, siting the development within a natural hollow in the local landform, the suggested juniper green colour for the built form, landscape enhancements associated with the proposal and good levels of mature vegetation within the surrounding landscape.

LANDSCAPE AND VISUAL CONTEXT

13. The proposed development would be situated within two pasture fields (divided by a post and wire fence) to the north of the local highway to the north of Llangadfan village. The site fields are pasture fields of irregular shape and bounded predominantly by some hedgerows and also post and wire fencing.
14. Within the main site field, an existing barn is already located along the western boundary (See Plates 1 and 2 later within this report). The building is 24.4m long by 5.5m wide and 7.0m tall to the ridge of the roof and is juniper green in colour.

15. The nearest residential properties to the proposed building are Pant-gwyn and Bryngwalia (both approximately 350-400m southeast of the proposed development), Bryn-y-cudyn (approximately 400m to the northwest), Penyffordd (approximately 800m to the north), Esgairllyn (approximately 700m to the northeast), Blowty-bach (approximately 500m to the south), Blowty (approximately 700m to the south) and a small number of properties in the vicinity of Blowty at distances of approximately 700-900m to the south. Beyond this, most properties are located at distances of over 1km from the proposal.

Landscape Fabric

16. The two fields within which the proposed development would be located are currently used for pasture and at the time of the site visit, parts of the main site field were used to store timber from forestry felling. Parts of each site field are bounded by hedgerows although these are broken and gappy and reinforced by post and wire fencing throughout. Occasional hedgerow trees are found within the hedgerows. Further pasture fields extend out in all directions, although those to the south are located on the other side of the local road.
17. The road is characteristically bounded on both sides by hedgerows in the vicinity of the site, generally 1.5 in height and well maintained with a number of mature trees associated with the hedgerows. However, at the site entrance a short section of the roadside hedgerow will need to be removed to accommodate the larger site entrance and sections of the existing hedgerow on either side of the entrance will need to be translocated slightly to the north into the site field so as to create a suitable visibility splay.
18. Typically field hedgerows are the characteristic field boundary in the local area, approximately 1.5 – 2m in height, with regular hedgerow trees within an irregular field pattern. Small woodland blocks are a regular feature of the local area, with a number of small woodlands and tree belts scattered throughout the area to the south, west and east. To the north extensive areas of forestry extend north, with the closest located approximately 700m north of the proposed buildings. Woodland and forestry tree cover is a recurrent element within this landscape.
19. The landform of the site is predominantly flat and is between 220m and 230m AOD. Beyond the site, the landform gently rises to the north, east and south, creating a relatively enclosed location for the proposed development. Pren Croes to the north forms one of the highest points within the study area at 330m AOD. The landform gently falls towards Llangadfan and Afon Banwy within the south of the study area, before gently rising again to the far south. A number of streams and brooks are found throughout the study area, generally feeding into Afon Banwy.

20. The nearest footpath to the site is located across the field adjacent to the site to the east, approximately 50m from the proposed development at its closest point. This footpath travels in a northeast direction to meet the Glyndwr's Way. However, it is worth noting that this footpath is not signposted at either end and access is not readily available across existing field boundaries. Another footpath (also not signposted) is located to the north of the site, travelling between two points on the B4395 and approximately 100m north of the proposed buildings at its closest point. The Glyndwr's Way travels broadly north to south through the study area, through forestry and across Pren Croes in the north, over the B4395, through the landscape east of the site (approximately 250m east of the proposed development at its closest point), through Llangadfan and up to Pen Coed to the southwest of the study area. A large number of public rights of way are found throughout the study area, the majority of which are public footpaths.
21. The B4395 is the closest main road to the site, located approximately 200m west of the site at its closest point, running broadly north from the A458 in Llangadfan. The A458 is located approximately 1.0km southwest of the proposed development at its closest point and runs broadly west to east through the south of the study area. Beyond this, the road network is formed entirely by local roads within the study area. The local road to the south of the site runs broadly northeast to southwest to join the B4395 approximately 300m west of the site.

Landscape Character

22. Natural Resources Wales (NRW) has produced a landscape character map for the whole of Wales, with 48 national landscape character areas (NLCAs). NRW has also provided detailed descriptions of each NLCA (NRW, 2014). The proposed development would be entirely located within NLCA 17 – Montgomeryshire Hills and Vales, as indicated on **Figure LV1**.
23. The NRW NLCA describes the key characteristics of the Montgomeryshire Hills and Vales as:
    - **A series of hills and valleys** - which are aligned broadly east to west, with sinuous, curved skylines.
    - **A mix of both upland and lowland parts** – the highest land in the north-west adjacent to Y Berwyn. As a whole the area is transitional between adjacent upland and lowland.
    - **A number of rivers** - carve through the area, notably those of the Tanat and Vyrnwy.
    - **Pastoral agriculture** - with lowland pasture in the river valleys and hill sheep farming on the upper valley sides and ridges.
    - **Hedgerows with trees** - as field boundaries.

- **Woodland** - blocks of deciduous woodland of irregular or organic form, especially on steep valley sides and with important ecological importance, and some coniferous plantation woodland.
- **Archaeology** - sites and settlements from the Roman and Medieval periods, in addition to a number of historic parklands such as Llangedwyn and Bodfach. Meifod was an important Early Christian church foundation.
- **Settlement** - confined to isolated farmsteads and compact nucleated valley villages associated primarily with historic river crossing points.
- **Patchwork landscape of pastoral fields and woodland**, with an intimate spatial character created by the distinctive combination of vegetation and the undulating ridge and valley land form.

24. NLCA 17 covers the majority of the 3km radius study area, as indicated on **Figure LV1**. NCLA 16 – Y Berwyn covers the northern part of the study area. The NRW NLCA describes the key characteristics of Y Berwyn as:

- **Spine of extensive, open, unenclosed, rolling uplands**
- **A series of deeply incised 'V' or 'U' shaped river valleys -** to the south-east side.
- **Waterfalls** including Pistyll Rhaeadr (the highest in Wales) to the north west of Llanrhaeadr-ym-Mochnant, relating to geology.
- **Moorland** - of the central and western 'massif' is recognised and protected as being of significant ecological interest for moorland breeding bird species.
- **Marginal farming** – fieldscapes extending up the hillsides with a distinct land-cover change to unenclosed moorland characterise some areas e.g. west of Glyn Ceiriog.
- **Remote and unsettled, inland character** – contiguous with the uplands, but gentler with more enclosure up hillsides to the eastern fringe, e.g. around Pontfadog
- **Some mining and quarrying heritage** - e.g. slate in Glyn Ceiriog area.
- **Llyn Vyrnwy** – a large reservoir in a 'U' shaped valley, and much C20th afforestation, plus the adjacent Dyfnant Forest result in significant change to formar character.
- **Large scale upland coniferous forest** – in some areas and interspersed with the moorland and on hillsides above Llyn Vyrnwy.
- **Lower lying pasture, field boundary hedgerows, hedgerow trees and deciduous woodland** – in river valleys such as the Tanat.
- **Settlement in valleys** - only a few, compact, linear valley villages such as Llangynog.

- **Archaeology** - prehistoric ritual and funerary monuments such as the cairns and round barrows in the most elevated areas, and evidence of occupation on moorlands and in the Tanat valley.
- **Tranquil** – the overwhelming majority of the area is quiet, rural and has a very low level of development.

25. In addition, NCLA 21 – Cambrian Mountains, covers small parts of the south of the study area. The NRW NLCA describes the key characteristics of Cambrian Mountains as:

- **Upland plateau** - A band of resistant Silurian grits forming a vast upland, rolling, windswept plateau of moorland hills and incised valleys at the heart of Wales.
- **Deep valleys and glacial features** - Glaciation gouged deeply dissected U-shaped valleys into the plateau, as well as corries (cymoedd), lakes and moraines.
- **Open moorland and forestry** - Thin soils support extensive tracts of sheep grazed grassy moorland – the smooth slopes are interspersed with bracken scrub, wind blown oaks and angular blocks of coniferous forestry.
- **Peat bogs, pools** - Upland peat deposits give rise to large areas of blanket bog and pools of open water.
- **Hedgerow enclosed pastures** - Deep valleys on the edges of the moorland, with their distinctive pattern of hedgerow enclosures, lush pastures for stock grazing, and woodland.
- **Major reservoirs** – notably Nant-y-Moch, Llyn Clywedog, Craig Goch, Penygarreg, Garreg-ddu, Claerwen and Llyn Brianne are features of the valleys, contributing to the landscape's man-made features.
- **Mineral exploitation** - Metal ores have been exploited from the prehistoric period with evidence for Bronze Age copper working at Copa Hill, however, most activity relates to extensive lead and silver mining which occurred principally during the 19th and 20th centuries.
- **Lack of settlement** - Settlement is largely absent, being confined to the lower hillsides and valleys, however, a large number of deserted settlements indicate that settlement was once more widespread than today.
- **Natural features** - Screes and cliffs, gritstone outcrops, stony summits, bracken scrub and wind blown oaks provide texture in the landscape.
- **Panoramic views** - from high summits over the moorlands and adjacent lowlands are a feature of the hills.

- **Tranquil** - The mountains engender a sense of remoteness because of their dark night-time skies, low population density, relative inaccessibility, the impression of naturalness they impart and the relative lack of visible, built influences.
- **Archaeology** - The mountains contain a significant scattering of prehistoric monuments, including round barrows, cairns, stone circles and standing stones, Iron Age hillforts and settlements. The fort at Cae Gaer indicates a Roman presence, while the Cistercian abbey of Strata Florida was established on the west side of the mountains in the late 12th century. Its granges covered much of this area as well as part of lowland Ceredigion.

26. Finally, the five separate LANDMAP layers have also been considered and identified covering the site as follows:
    - Cultural – Rural Landscapes MNTGMCL051 (overall evaluation – high),
    - Geological – Llangadfan MNTGMGL306 (overall evaluation – moderate),
    - Historic – Dolanog MNTGMHL419 (overall evaluation – high),
    - Landscape Habitats – Improved Grassland MNTGMLH017 (overall evaluation – high),
    - Visual and Sensory – Pont Llogel Farmlands MNTGMVS278 (overall evaluation – high).

Landscape Designations

27. There are no national or local landscape designations in the 3.0km radius landscape and visual study area. The general planning policy context is discussed in more detail within the **Design and Access Statement**.

Visual Receptors

28. The visual receptor locations within the 3.0km radius landscape and visual study area include:
    - Settlements – Llangadfan, Foel and Llanerfyl.
    - Individual residential properties – scattered houses and farmsteads.
    - Long distance routes – Glyndwr's Way.
    - Local public rights of way – footpaths, bridleways and byways open to all traffic (BOATs).
    - Public highways – including the A458, B4395 and a number of unclassified local roads.
29. The Countryside and Rights of Way (CRoW) Access Lands Maps accessed through the NRW website [1] have been checked and show a number of areas of Open Access Land within the 3km radius study area, mainly across Dyfnant Forest to the north, approximately 0.7km from

1 http://lle.gov.wales

the proposed building at its closest point and across south facing slopes of land near Foel (2.4km to the west at their closest point).

VISUAL ANALYSIS

Theoretical Visibility Analysis

30. **Figure LV1** includes a zone of theoretical visibility (ZTV) for the proposed building, indicating the locations within a 3.0km radius where topography would theoretically allow visibility of the building. This has been based on two of the highest points of the proposed building; the ridgeline of the roof (Points A and B). These points have been used at a height above ground level relating to the maximum height of these built elements within the design. The ZTV has been generated using a computer-based intervisibility package and the Ordnance Survey Digital Terrain Model (DTM) with height data at 50m intervals.
31. The ZTV is based on bare terrain topographical data only. It does not take into account the screening effects of any minor topographic features, vegetation such as forestry plantations, woodland, tree belts and hedgerows or built structures and therefore tends to over-emphasise the extent of visibility in this type of well vegetated landscape, providing a worst case scenario. In reality, these surface features would fragment and reduce the extent of most of these zones of theoretical visibility, and, in a well vegetated landscape such as this, would also reduce the amount/proportion of the proposed development visible from any given location.
32. Due to the undulating and broadly valley nature of the topography within this study area, the ZTV indicates very limited potential visibility of the proposal from the majority of the study area, with the main potential views confined to central parts of the study area.
33. The ZTV does not illustrate the decrease in the scale of the proposed built development with increased distance from the site which is better illustrated by viewpoints. Fieldwork and the viewpoint analysis are essential as a way of verifying the ZTV and undertaking a thorough assessment.
34. The ZTV has aided in the identification of viewpoints. These viewpoints are intended to illustrate typical visibility of the proposal from the local area and have been located in positions where the ZTV has suggested that potential visibility of the proposed building may be available.
35. Six viewpoints were selected to illustrate this appraisal, each located on publicly accessible locations representing some of the most open and/or elevated locations or receptors within the study area. The viewpoints are listed below and their locations are shown on **Figure LV1**.

Viewpoint Analysis

36. A detailed description of the six viewpoints and the potential changes that would occur through the introduction of the proposed development are contained below. It is important to note that the viewpoints were photographed in April 2019, and they each cover a 40 degree horizontal width of view although no set viewing distance should be ascribed to individual views. The viewpoint images are provided for information purposes and are labelled with relevant notes and should not be considered as a substitute to visiting a viewpoint in the field.

Table LV1 – List of viewpoints

Vp	Viewpoint Name	NGR	Distance from proposed building	National Landscape Character Area (& LANDMAP V&S layer)	Visual Receptor
1	Footpath west of site near B4395	301360 312115	0.12km	Montgomeryshire Hills and Vales (Pont Llogel Farmlands)	Walkers
2	Glyndwr's Way northeast of site	301745 312530	0.3km	Montgomeryshire Hills and Vales (Pont Llogel Farmlands)	Walkers
3	Local road east of site	301955 312425	0.5km	Montgomeryshire Hills and Vales (Pont Llogel Farmlands)	Motorists
4	Glyndwr's Way south of Bryngwalia	301930 311765	0.5km	Montgomeryshire Hills and Vales (Pont Llogel Farmlands)	Walkers
5	B4395 near footpath north of site	301500 312880	0.6km	Montgomeryshire Hills and Vales (Pont Llogel Farmlands)	Walkers, Motorists
6	Glyndwr's Way near Bryncyrch	300305 310295	2.2km	Cambrian Mountains (Llanerfyl Mosaic Farmlands)	Walkers

Prediction Methodology for Viewpoints

37. The following viewpoint analysis has described the existing view from each viewpoint and has identified the visual receptors at each viewpoint. In accordance with GLVIA3, the sensitivity of each visual receptor group at each location is a function of the susceptibility of visual receptors to change at that location and the value attached to these views.

38. All visual receptors are people and are assumed to be equally sensitive to change. However, the location and activities of visual receptors influence the way in which they currently experience the landscape and views, the extent to which views of the surrounding landscape may contribute to their existing visual amenity, the value they place on these views and their susceptibility to changes in these views. Accordingly, at any one location there may be different levels of sensitivity for the different receptor groups, the sensitivity may vary depending on the direction of the view, and any one receptor group may be accorded different levels of sensitivity at different locations.

39. Receptor susceptibility levels of susceptible, moderate susceptibility and slight susceptibility are used taking into account the following factors:

- Receptor location, occupation or activity,
- Movement of receptor and duration and frequency of view experienced,
- Focus of attention and interest.

40. The judgement of value is based on a five point scale – National value, County/Borough/District value, Community value, private value, unvalued. The value attached to a location or to a particular view at a location can influence the purpose and expectation of receptors at the location and the judgement of value takes into account:

- Recognised value – for example by the presence of planning designations or designated heritage assets,
- Indicators of value – to individuals, communities and society generally, such as the popularity of a location.

41. Accordingly, within this assessment visual receptor sensitivity is determined in terms of the sensitivity of each location for each receptor type (rather than the sensitivity of the receptors *per se*), using a five point relative scale (high, high/medium, medium, medium/low and low).

42. The magnitude of the change in the views from the six viewpoints has been assessed based on the assessor's interpretation of largely quantifiable parameters, including:

- Distance and direction of the viewpoint from the development.
- Extent of the development visible from the viewpoint.

- Field of view occupied by the development (horizontal and vertical angles of view) and proportion of view (as a percentage of the panorama).
- Context of the view and degree of contrast with the existing landscape and built elements (background, form, composition, pattern, scale and mass, line, movement, colour, texture, etc).
- Scale of change with respect to the loss or addition of features in the view.
- Duration and nature of the effect, eg direct/ indirect, secondary, cumulative, temporary/ permanent, short term/ long term, intermittent/ continuous, reversible/ irreversible, etc (as related to the nature of the development).

43. This magnitude of change scale is a relative scale and is not an absolute scale.

44. The resulting overall degree of impact is a combination of receptor sensitivity and the magnitude of change and is divided into eight levels of impact (major, major/moderate, moderate, moderate/ minor, minor, minor/ negligible, negligible and imperceptible) as indicated in the matrix below.

Table LV2: Assessment of overall impact

Location sensitivity	Magnitude of change			
	Substantial	Moderate	Slight	Negligible
High	Major	Major/ moderate	Moderate	Moderate/ minor
High/ medium	Major/ moderate	Moderate	Moderate/ minor	Minor
Medium	Moderate	Moderate/ minor	Minor	Minor/ negligible
Medium/ low	Moderate/ minor	Minor	Minor/ negligible	Negligible
Low	Minor	Minor/ negligible	Negligible	Imperceptible

Viewpoint 1 – Footpath west of site near B4395

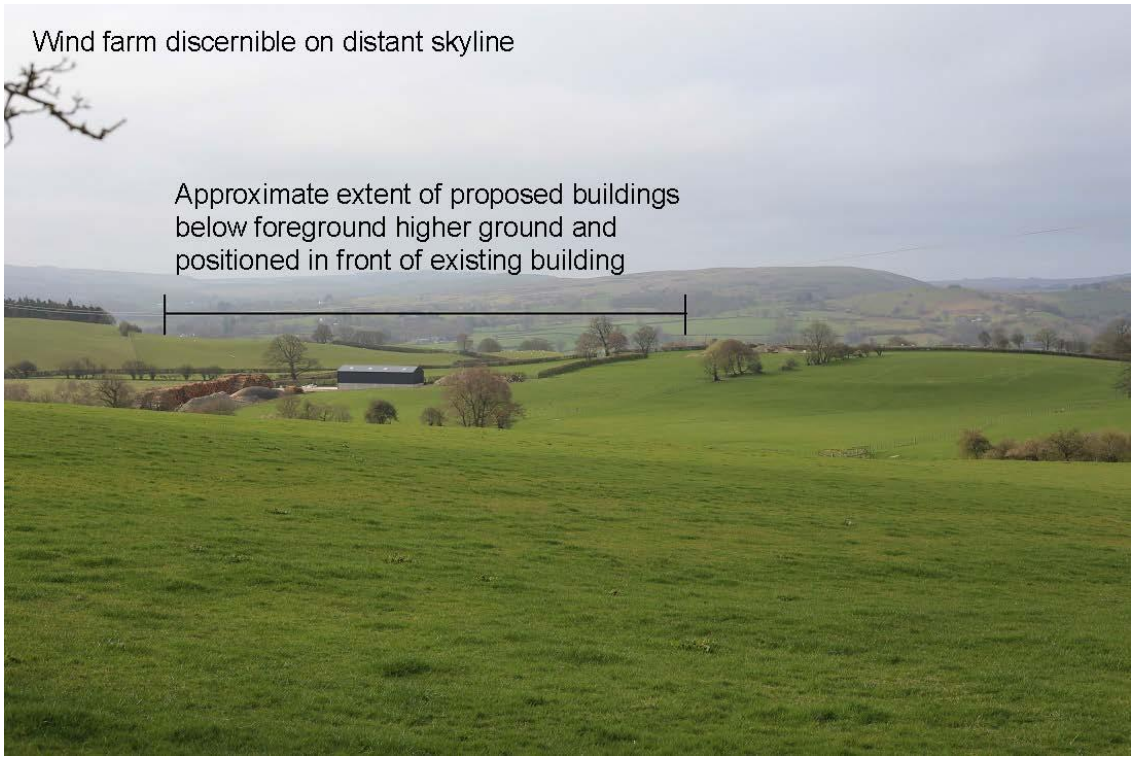
45. This viewpoint is located at approximately 230m AOD and 120m west of the proposed buildings at one of the highest and most open points on the footpath looking to the east. The viewpoint is located within the Montgomeryshire Hills and Vales NLCA and the Pont Llogel Farmlands Visual and Sensory Aspect Area. The viewpoint is looking east and shows the landform drops gently to the east. The view also shows the log piles located within the main site field, as well as parts of the eastern hedgerow field boundary of the site field.

46. The proposed development would be clearly visible from this location as two new and modern buildings within the near distance. However, it is also important to note that (as indicated by **Plate 1** below) an existing modern building is already located within the site field, and is also clearly visible from this footpath. As the landform of the site is generally lower than the viewpoint, some lower parts of the proposed buildings would be screened by the intervening landform, in the same way that some parts of the main site field and boundary hedgerow are screened in the existing view. In addition, over time proposed planting measures including a native tree belt between the site and this viewpoint would establish to filter and gradually screen the proposed development from view.

47. The viewpoint represents views of walkers (high/medium sensitivity) along the local footpath. The magnitude of change in the view would be *substantial* with the building visible within a

section of the view currently predominantly rural in context. Therefore, the visibility of the proposal would result in a *major/moderate* impact for walkers.

Viewpoint 2 – Glyndwr's Way northeast of site



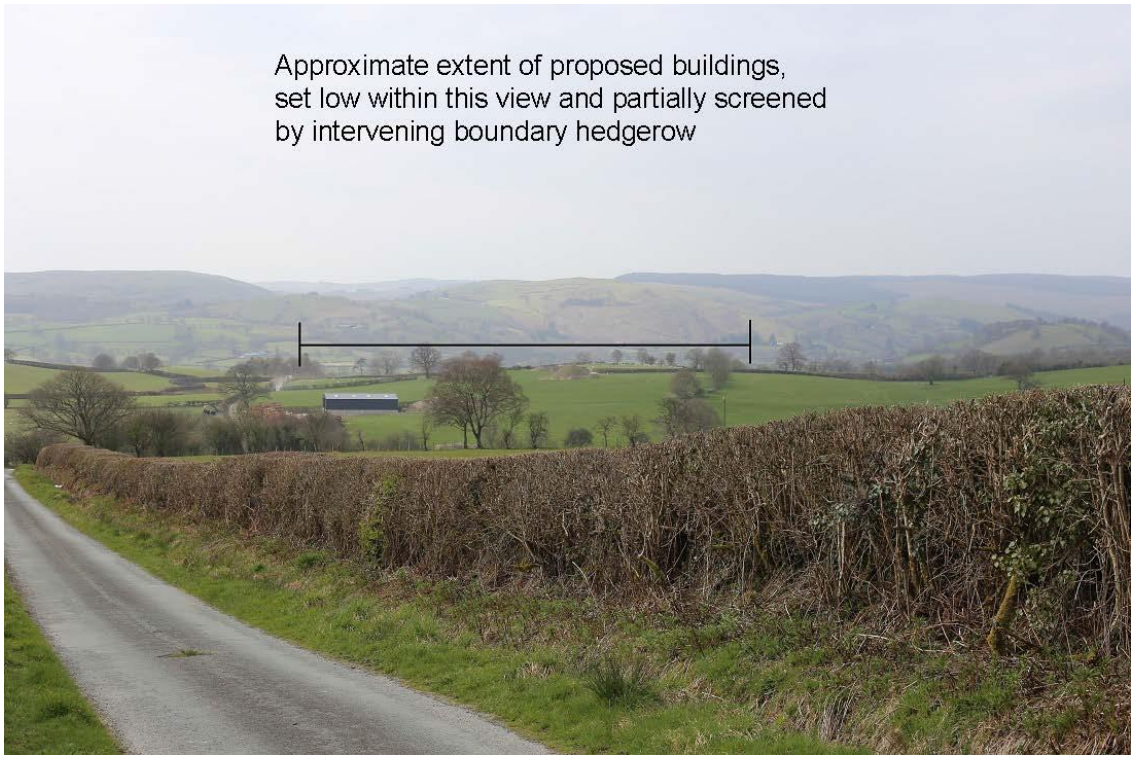
48. This viewpoint is located at approximately 250m AOD and 300m northeast of the proposed development on Glyndwr's Way. The viewpoint is located within the Montgomeryshire Hills and Vales NLCA and the Pont Llogel Farmlands Visual and Sensory Aspect Area. The viewpoint is looking southwest and shows the site is located on lower land as part of wide and panoramic views.

49. The proposed buildings would be visible from this location as a new and modern development within the middle distance in the context of an existing modern agricultural building, although they would be seen as larger structures. The buildings would be set relatively low within the local landscape and would be seen backgrounded by surrounding farmland and more distant higher land. The buildings would be partially filtered by the existing hedgerow to the east of the site, but over time improvements to this hedgerow, along with a new native woodland belt east of the hedgerow would filter and eventually screen views of the proposal from this angle. In addition, improvements to the hedgerow immediately west of Glyndwr's Way by infilling the current gappy hedgerow boundary would further filter these views.

50. The viewpoint represents views of walkers along this section of the National Trail (high sensitivity). The magnitude of change in the view would be *moderate* with the buildings

partially visible within a section of the view currently partially rural and partially developed in context. Therefore, the visibility of the proposal would result in a *major/moderate* impact for walkers.

Viewpoint 3 – Local road east of site



51. This viewpoint is located on a local road to the east of the site at approximately 260m AOD and 500m east of the proposed development, within the Montgomeryshire Hills and Vales NLCA and the Pont Llogel Farmlands Visual and Sensory Aspect Area. The viewpoint is looking west towards the site over the roadside hedgerow which is trimmed to a height of approximately 1.5m in this location. The existing agricultural building on site is visible, although from lower elevations on this road the intervening field hedgerows would at least partially screen it from view. The middle distance landform rises gently behind the barn with more distant higher land forming the horizon of this wide and panoramic view.

52. The proposed buildings would be partially visible in this view, seen in front of the existing building, but behind the layering of existing field boundary hedgerows which would screen parts of the buildings entirely. Over time improvements to the hedgerow immediately east of the site and the hedgerow along the Glyndwr's Way, along with a new native woodland belt east of the site would further filter and eventually screen views of the proposal from this angle.

53. The viewpoint represents views of motorists (medium sensitivity). The magnitude of change in the view would be *slight*, resulting in *minor* impacts for motorists at this point.

Viewpoint 4 – Glyndwr's Way south of Bryngwalia

54. This viewpoint is located on Glyndwr's Way approximately 200m south of Bryngwalia at approximately 230m AOD and 0.5km southeast of the proposed development, within the Montgomeryshire Hills and Vales NLCA and the Pont Llogel Farmlands Visual and Sensory Aspect Area. From this location wide views are available across the local valley.

55. As part of this open view the proposed development would be discernible in the middle distance, seen low set within the view, adjacent to the existing building and backgrounded by surrounding land. Hedgerow trees are proposed as an addition to the roadside hedgerows near the site in order to filter views towards the proposal over time. In addition, improvements to the hedgerow immediately east of the site and the adjacent proposed native woodland belt would add some further screening (over time) to the eastern side of the development.

56. The viewpoint represents views of walkers on the Glyndwr's Way (high sensitivity). The magnitude of change in the view would be *slight*, resulting in *moderate* impacts for walkers at this point. It is also useful to note that for much of this section of the Glyndwr's Way, the adjacent field boundary hedgerow would screen views of the proposal due to its height. The viewpoint was located at one of the few available points with views out to the northwest.

Viewpoint 5 – B4395 near footpath north of site

57. This viewpoint is located on the B4395 close to Dyfnant Forest at approximately 270m AOD and 0.6km north of the proposed building within the Montgomeryshire Hills and Vales NLCA and the Pont Llogel Farmlands Visual and Sensory Aspect Area. A footpath is located nearby, following a route south through the nearby landscape. The image indicates the land gently sloping to the south to reveal an open view which is panoramic and long distance.

58. The proposed buildings would be discernible in the middle distance of the view, seen in association with the existing building although partially screened by existing intervening mature vegetation. Further to this, proposed landscaping measures would filter and screen the building further over time. In particular, woodland tree belts proposed to the north and east of the building would provide effective screening once established.

59. The viewpoint represents views of motorists on the main road (medium sensitivity) and public rights of way users on the local footpath (high/medium sensitivity). Immediately post construction, the magnitude of change in the view would be *slight*, resulting in *minor* impacts for motorists and *moderate/minor* impacts for walkers at this point.

Viewpoint 6 – Glyndwr's Way near Bryncyrch

60. This viewpoint is located on Glyndwr's Way within the south of the study area close to the farm at Bryncyrch at approximately 205m AOD and 2.2km southwest of the proposed development within the Cambrian Mountains NCLA and the Llanerfyl Mosaic Farmlands Visual and Sensory Aspect Area. From this location the views out are long distance and panoramic to the north where the photograph above illustrates a small portion of the view, with parts of Dyfnant Forest seen along the skyline.

61. The existing building on site is barely discernible as part of the wide and detailed view where the green colour blends well with the surroundings. The proposed buildings would be located behind the existing building and would be positioned at a similar height within the site field. Given their similar proposed colour, it is expected that they would also be barely discernible at this distance within the overall view. Over time, the proposed woodland tree belt to the southwest of the site would establish to provide a natural screen to the proposal.

62. The viewpoint represents views of public rights of way users on the Glyndwr's Way National Trail (high sensitivity). The magnitude of change in the view would be *negligible*, resulting in *moderate/minor* impacts for walkers at this point.

Table LV3 – Summary of visual impacts

Vp	Viewpoint Name	Distance from proposed building	Predicted Visual Impacts
1	Footpath west of site near B4395	0.12km	Walkers – major/ moderate impacts
2	Glyndwr's Way northeast of site	0.3km	Walkers – major/moderate impacts
3	Local road east of site	0.5km	Motorists – minor impacts
4	Glyndwr's Way south of Bryngwalia	0.5km	Walkers – moderate impacts
5	B4395 near footpath north of site	0.6km	Walkers – moderate/ minor impacts Motorists – minor impacts
6	Glyndwr's Way near Bryncyrch	2.2km	Walkers – moderate/ minor impacts

Further Photographs

63. It is noted that the ZTV in **Figure LV1** suggests that the proposed development may potentially be visible mainly from only a very limited number of locations within the study area. Fieldwork suggested that even within these areas existing woodland, tree belts and hedgerows would also screen views of the proposal from some locations. As a result, the number of locations and the extent of visibility of the proposal would be limited. The viewpoints provide evidence of this limited potential visibility.

64. The photographs below are provided as an indication of landscape character, typical views and levels of vegetation within various parts of the study area.

Plate 1 –View of existing agricultural building on site. NGR 301540 312055.

Plate 2 – View of existing agricultural building on site. NGR 301540 312055.

Plate 3 – View from local road east of the site illustrates the layering effect of roadside vegetation, where the site is screened from view, even in winter months. NGR 301685 312195.

Plate 4 – Roadside hedgerows by the site, looking eastwards. NGR 301545 312045.

Plate 5 – View towards the site from junction of B4395 with local road to site. Existing building is entirely screened from view by intervening higher land. NGR 301265 311855.

Plate 6 – View southwest from local road indicating that sizeable agricultural buildings are not uncommon in this local landscape. NGR 301925313205.

Plate 7 – View towards the site from Glyndwr's Way by Pant-gwyn showing dense hedgerows entirely screen the view. NGR 301970 312065.

Plate 8 – View southwest towards the site from Glyndwr's Way close to Vp 2. Existing building and proposed development site are entirely screened NGR 301725 312615.

Plate 9 – View southeast towards the site from byway to Pren Croes. A bank of existing intervening trees almost entirely screens the site and existing building from view. NGR 300830 313085.

Plate 10 – View west from junction of local road and footpath showing that agricultural buildings are a typical part of views across the area, but also the layering of vegetation in views is common. Site would be in distance in centre of view partially visible as distant feature. NGR 303505 312200.

Plate 11 – Typical view north from south of LLangadfan illustrating the patchwork character of the view. Existing building is barely discernible. NGR 300040 310375.

Plate 12 – Typical roadside hedgerows and hedgebanks screen many views out from local roads south of Llangadfan. NGR 300040 310375.

LANDSCAPE ASSESSMENT

65. This assessment draws on the review of the predicted effects of the development, the landscape fabric of the site, the key characteristics of the NLCAs, the LANDMAP Aspect Area descriptions, the purposes/objectives of the landscape designations, the viewpoint analysis and fieldwork observations.

Effects on Landscape Fabric

Prediction Methodology

66. Landscape fabric is composed of the physical components of the landscape (eg landform, land cover and landscape elements and features). Developments can bring about both direct and indirect effects on landscape fabric. Direct effects occur where changes to the fabric of the landscape arise as the result of physical disturbance, for example, the loss of landscape elements such as hedgerows, walls and trees. Indirect effects are consequential changes that are separated from the source of the change in a temporal or spatial manner, for example changes in vegetation downstream as the result of modifications to surface water patterns upstream in a catchment area.

67. This assessment of effects on landscape fabric considers the existing landscape fabric of the site and the predicted effects of the development, and makes a judgement as to whether there are likely to be any beneficial or adverse changes to landscape fabric.

68. The proposed site of the buildings, access and hardstanding area are located within two existing pasture fields where there would be limited loss of ground vegetation as a result of the footprint of the built form and access / hardstanding area within the proposed development. An existing field access point would be utilised and extended slightly, with a limited section of roadside hedgerow translocated slightly back into the site field to create a suitable visibility splay at the entrance. This would also involve slightly lifting the crown of a neighbouring oak tree within the roadside hedgerow, although the tree itself would remain throughout the life of the development. No earthworks are proposed as part of the development.

69. Several landscaping proposals are included within the application as follows:

- Existing hedgerows immediately east of the site would be improved and infilled with appropriate native species,
- Hedgerow trees would be added to existing hedgerows on the local road south of the site
- New native woodland belts would also be added to several fields adjacent to and surrounding the site

- The existing hedgerows east following the route of the Glyndwr's Way would also be improved by infilling gappy sections.

70. These features are proposed so as to soften views of the proposal but are also considered appropriate and in keeping with the local landscape fabric and nearby field boundary treatments. These landscaping measures would be beneficial in terms of landscape fabric when balanced against the adverse effects of translocating the short section of roadside hedgerow.

71. Overall there would be some limited disturbance of existing landscape features through the translocation of the roadside hedgerow at the access point, although there would be appropriate reinstatement of the ground over all ground disturbed by the works. Significant landscaping measures are also proposed, as outlined above. Therefore, overall there would be beneficial effects on landscape fabric as a result of the proposal.

Effects on Landscape Character

Prediction Methodology

72. In accordance with GLVIA3, the sensitivity of each landscape unit is judged on the basis of its value and its susceptibility to change arising from the specific type, scale and location of development proposed.

73. The susceptibility to change of a landscape unit is based on a three point scale (susceptible, moderate susceptibility and slight susceptibility) and depends on:

- The key characteristics of the landscape, and the clarity and robustness of these characteristics,
- Nature of views (visual enclosure/openness of views and extent to which views contribute to landscape character),
- Landscape planning policies and strategies for the landscape unit,
- The nature of the changes to landscape character and views that could be brought about by the type, scale and location of the proposed development and the compatibility of these with the above factors.

74. Judgements on landscape value are based on those given in published landscape character assessments (where given) and/or checked in the field from fieldwork observations.

75. Accordingly, the assessment of landscape sensitivity for each landscape unit is derived from the judgement of value and combined with the judgement of susceptibility to give a level of landscape sensitivity as part of a five point scale – high, high/medium, medium, medium/low or low sensitivity.

76. The magnitude of the change in landscape character is assessed using a four point scale – substantial, moderate, slight and negligible. This magnitude of change scale is a relative scale and is not an absolute scale. It is based on the assessor's interpretation of largely quantifiable parameters, those of which have already been set out within paragraph 42 above.

77. The sensitivity of the LCU is then combined with the magnitude of change to predict the potential impacts on landscape character as set out within the matrix below (the same as illustrated in **Table LV2** above).

Table LV2 – Assessment of overall impact

Location sensitivity	Magnitude of change			
	Substantial	Moderate	Slight	Negligible
High	Major	Major/ moderate	Moderate	Moderate/ minor
High/ medium	Major/ moderate	Moderate	Moderate/ minor	Minor
Medium	Moderate	Moderate/ minor	Minor	Minor/ negligible
Medium/ low	Moderate/ minor	Minor	Minor/ negligible	Negligible
Low	Minor	Minor/ negligible	Negligible	Imperceptible

Montgomeryshire Hills and Vales NLCA

78. The NLCA describes the Montgomeryshire Hills and Vales as a "*very rural hill and valley landscape…… Some of the hills are distinctively shaped, occasionally of upland character, or seen as isolated and rising from the general lowland that prevails across the rest of this area. There are many quiet, sylvan river valleys with a locally distinct character, from broad flood plain and meandering river, to steep wooded hillsides and narrow incised valley. There are neatly managed mixed fields in the richer valley bottoms and grazing on higher slopes and moorlands. Hedgerows enclose pastures that often reach right over the tops of the lesser intervening ridges. For a wide area around neighbouring Welshpool, many estate woodlands provide a parkland*

character in places. There are a number of villages in the river valleys, and farmsteads on the valley sides."

79. These elements lend a strong sense of place to the area. In terms of LANDMAP aspect areas, the locality of the site can be summarised as having an overall high evaluation (Historic – high, Cultural – high, Visual and Sensory – high, Habitats – high, geology – moderate). However, the NLCA does not ascribe a level of sensitivity to the Montgomeryshire Hills and Vales.

80. It is worth noting that the limited height and extent of the proposed development would be generally visually contained and would not alter any of the key characteristics of this NLCA as outlined above (key characteristics – series of hills and valleys, mix of upland and lowland parts, a number of rivers, pastural agriculture, hedgerows with trees, woodland, archaeology, settlement, patchwork landscape of pastoral fields and woodland. Five of the landscape and visual viewpoints are located within this NCLA and illustrate not only the good levels of mature vegetation within the local landscape, but also the limited potential visibility of the proposal. The ZTV further reinforces the limited visibility of the proposal from within the NCLA which is broadly confined to areas local to the site.

81. Much of the character of this landscape is derived from its intrinsic characteristics and features where views across the area form part of this character and the susceptibility to the type and location of development proposed is considered to be moderate and the sensitivity of the NLCA to the proposal is considered to be high/medium.

82. Overall, as already discussed, this landscape features a number of small woodland blocks and tree belts as well as good levels of roadside and field boundary hedgerows with regular hedgerow trees. These areas of vegetation regularly screen or partially screen the proposed buildings, as indicated by the viewpoints. In addition, it is worth noting that where visible, the proposal would recurrently be seen in association with the existing agricultural building on site, either backgrounded by this building, or seen behind it. This existing building is occasionally visible within this landscape, in the same way that the proposed buildings would be occasionally visible, and it is seen as a characteristic element of the local area, where a number of other agricultural buildings are dotted throughout the area. Whilst the proposed buildings would be larger in size than the existing one, they would be similar in height, design and colour and in the same way would be similar to other existing farm buildings, and would not be seen as out of place, especially given the planting proposals local to the site which would reinforce existing hedgerows and break up existing views across the site, partially screening the proposed buildings in short and middle distance views.

83. The viewpoints are located at distances ranging between 120m and 600m from the proposal, where the majority of the viewpoints would gain only partial visibility of the proposal. In addition, some of the plates of further photographs indicate additional locations where the proposal would be screened from view. Essentially the viewpoints have illustrated that the area within which the proposal would be visible would be extremely limited and the additional fieldwork photographs have corroborated this finding.

84. Within the vast majority of the NLCA within the study area, the proposed development would not be visible, screened by intervening vegetation, topography and built form, as indicated by the ZTV. From some proximate locations within the NLCA some visibility of the proposed building would be available, similar to the views indicated by Viewpoints 1-5, resulting in a major/moderate, moderate and moderate/minor impacts on landscape character as the viewpoints become more distant from the site. However, as the proposed landscape mitigation measures establish the magnitude of change would reduce down over time.

Effects on Landscape Designations

85. As mentioned in paragraph 27 above, there are no national or local landscape designations in the 3.0km radius landscape and visual study area.

VISUAL ASSESSMENT

Prediction Methodology

86. Visual amenity arises from a visual receptor's experience of the visual world around them and the value they place on a particular view or views. This assessment draws on the predicted effects of the development, the viewpoint analysis and fieldwork observations, and discusses the predicted effects on the visual amenity of receptors at a range of visual receptor locations within the study area. Within this study area these include settlements, individual residential properties, long distance recreational routes, the local public rights of way network and public highways.

Settlements

87. Llangadfan, Foel and Llanerfyl are the main settlements within the study area, all located within the valley floor along the A458. The ZTV in **Figure LV1** indicates that topography would screen views of the proposed development completely from all of these settlements. As a result, the proposal would have no impact on the visual amenity of residents within these villages.

Individual residential properties

88. The nearest individual residential properties to the proposed building are Pant-gwyn and Bryngwalia (both approximately 350-400m southeast of the proposed development), Bryn-y-cudyn (approximately 400m to the northwest), Penyffordd (approximately 800m to the north), Esgairllyn (approximately 700m to the northeast), Blowty-bach (approximately 500m to the south), Blowty (approximately 700m to the south) and a small number of properties in the vicinity of Blowty at distances of approximately 700-900m to the south. Beyond this, most properties are located at distances of over 1km from the proposal.

89. Several of these properties are located outside of the ZTV (Bryn-y-cudyn, Esgairllyn, Blowty-bach, Blowty, Mount Pleasant and properties around Blowty, and so would gain no visibility of the proposed building.

90. The photographs in Plate 3 and Plate 7 above illustrate the good levels of vegetation associated with the roadside east of the site (which intervenes in views between the proposed site and Pant-gwyn and Bryngwalia) as well as the view looking towards the site from close to Pant-gwyn where the roadside vegetation screens views to the northwest. Nevertheless, some views of the proposed development may be available from these properties and/or their gardens, although this is expected to be filtered and partially screened by the intervening vegetation. In addition, the proposed woodland belt adjacent to the eastern site boundary would further filter these views over time. Initially a slight magnitude of change in the view is expected, which would result in a moderate impact on these residents. However, over time, as mitigation planting establishes, these impacts are expected to reduce to moderate/minor or lower levels.

91. Penyffordd is located to the north, in the vicinity of Viewpoint 5, although at a greater distance from the proposed development. Viewpoint 5 predicts a slight magnitude of change in the view, which would result in a moderate impact on these residents. However, over time, as mitigation planting to the north and east of the site establishes, these impacts are expected to reduce to moderate/minor or lower levels.

Long distance recreational routes and public rights of way

92. Glyndwr's Way is the only National Trail/ long distance route within the study area and broadly follows a north/south route through the area. The ZTV in **Figure LV1** indicates that the vast majority of the route is located outside of the ZTV where the proposed development would be entirely screened from view. Only two sections of the route would potentially gain visibility of the propsoal; one in the area immediately to the east of the proposal, and the second within the far southwest of the study area to the southwest of Llangadfan. Viewpoints 2 and 4 are

located in this first section of the route, at a distance of 300m and 500m from the proposal, respectively, predicting major/moderate and moderate impacts, respectively. In both cases it is important to note that the view represents the most open view available within the immediate area, where nearby views from the Glyndwr's Way would gain no visibility of the proposal due to localised vegetative screening (as indicated by Plate 8 above). It is also worth noting that the planting proposals associated with the application would add further screening to these views over time, which would in turn reduce the impacts of the proposal from those parts of the Glyndwr's Way where the proposed site is currently visible. Viewpoint 6 is located 2.2km from the proposal on the Glyndwr's Way where a moderate/minor impact is expected as part of wide and panoramic views.

93. **Figure LV1** indicates there are a number of local public rights of way within the study area, a limited number of which may potentially gain views of the proposed building, including the footpaths local to the site. Viewpoints 1 and 5 are located on or adjacent to local footpaths and illustrate that in some cases (including views from Glyndwr's Way), the good levels of vegetation within the landscape would often at least partially screen the proposal. As a result, views of the proposed development would vary from the footpath network, but with a limited number of proximate and open views available. Viewpoint 1 predicts a major/moderate impact for walkers, although it should be noted that proposed native woodland planting to the west of the site would limit visibility of the proposal considerably once established. The majority of other footpath views are expected to result in moderate/minor or lower impacts for walkers. It is also worth noting that several public rights of way local to the site would gain no visibility of the proposal at all, as indicated by the ZTV, such as the footpath in the vicinity of Blowty. Plate 9 above indicates the view from the byway to Pren Croes where existing intervening tree belts would almost completely screen the proposed development from view. Therefore, whilst the proposal would be visible intermittently from a few footpaths local to the site, it is worth noting that this visibility would be contained in extent and limited to a few footpaths, with the majority of public rights of way gaining no views of the proposal.

Public highways

94. The ZTV suggests potential views of the proposal would be available from parts of a very limited number of local roads within the study area and a short section of the B4395. No visibility of the proposal would be available from the A458. In reality, roadside hedgerows are a common feature of the local area (see Plates above for examples) and as a result, views from local roads are very variable. Fieldwork found that visibility of the proposal would be extremely limited,

especially from distances of over 0.5km from the site. This has been reflected in the viewpoints where only Viewpoints 3 and 5 are located on the highway network. From both these viewpoints a minor impact on motorists is expected. Fieldwork found that the proposal would regularly be screened from much of the highway network, with very limited impacts on motorists overall.

CONCLUSIONS

95. The ZTV has suggested potential visibility of the proposed development within very limited parts of the study area, with the majority of the study area gaining no visibility of the proposal due to screening from intervening topography. Fieldwork has found that the areas of potential visibility would be even more limited in reality due to the screening effects of vegetation and occasional built form. This is illustrated by the viewpoints and the photographs set out above, which have all been chosen from locations where the ZTV suggested visibility of the proposal may be available. However, in many cases the viewpoints and the photographs illustrate that the screening effects of local vegetation combined with the local topography would further reduce the areas where the proposal would be visible from that which is indicated on the ZTV.

96. In terms of landscape character, whilst the introduction of the proposed buildings may be a noticeable addition within the landscape immediately surrounding the site, these buildings would be seen in association with an existing agricultural building, where the limited height of the development and undulating landform of the locality would assist in integrating the proposal into the local landscape. The proposed landscaping measures of sizeable woodland tree belts and infilling gappy hedgerows would further assist with this integration. Overall it is considered that the proposal could be accommodated well within the local landscape context.

97. In landscape character and visual amenity terms, in combination with the landscape mitigation proposals, the proposed development would be a suitable fit within the context of its immediate surroundings and would result in limited changes to views and landscape character within the local area as illustrated by the viewpoints associated with this study.

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